

# The Digestive System

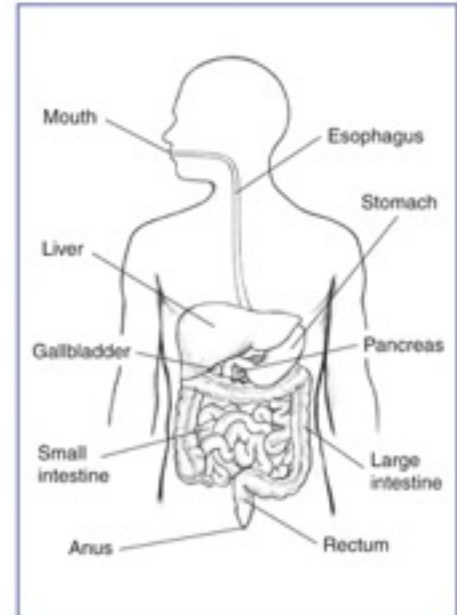
By: Peter, Alex, Sari and Ellena

## *What is the Digestive System?*

The digestive system is a group of organs working together to convert food into energy and the basic nutrients to feed the entire body.

## *How the Digestive System works?*

Food passes through a long narrow tube located inside the body. This tube is known as the **alimentary canal** or the **gastrointestinal tract**. This canal consists of the **oral cavity**, **pharynx** (throat), **esophagus**, **stomach**, **small intestines** and **large intestine**. Along with the **alimentary canal**, there are various important accessory organs that help your body digest food.



## *Steps of the Digestive System:*

### Step 1: Mouth

The mouth is the beginning of the digestive system. Firstly, chewing breaks down the food in your mouth. While your chewing the **saliva** mixes with the food to break down the food more easily.

### Step 2: Throat

The throat is also known as the pharynx. This is the second step in the digestive system. From this point the food will travel down the **esophagus**.

### Step 3: Esophagus

In the third step of the digestive system the food will travel down the esophagus which is a muscular tube that extends from the pharynx to the **stomach**. Through a series of contractions the esophagus will deliver food to the stomach. Before the connection to the stomach there is "zone of high pressure," this is also known as the lower esophageal sphincter.

### Step 4: Stomach

The stomach is the 4th step in the digestive system. The stomach is a sac like organ with a strong muscular walls. The stomach is used for holding the food in place, it is also used for a mixer and a grinder. The stomach continues the process of breaking down the food but also adds acid and powerful enzymes that help with the process. When the food leaves the stomach it is the consistency of a liquid or paste.

### Step 5: Small Intestine

The fifth step in the digestive system is the small intestine, this is made up of 3 segments. The small intestine consists of a 22 foot long tube that breaks down food. This food form enzymes from the pancreas and liver. Contents in the small intestine enter in the semi solid and exit in liquid form.

#### Step 6: Pancreas

The pancreas is the 6th step in the digestive system. It sends enzymes into the small intestine when needed and breaks down the protein, fat and carbs. It also makes insulin that is sent directly to the bloodstream.

#### Step 7: Liver

The liver's main job in the digestive system is to absorb nutrients from the small intestine. The bile from the liver is sent into the small intestine to break down the fat. The liver also detoxifies harmful toxins that could be in your body.

#### Step 8: Gallbladder

The gallbladder is the 8th step in the digestive system. The gallbladder stores bile and releases it to break down the fats within the food.

#### Step 9: Large Intestine

The large intestine is a 6 foot tube that connects the small intestine to the rectum. The large intestine absorbs water from the indigestible food matter in the stomach.

#### Step 10: Rectum

The rectum is the 8 inch organ that connects to the large intestine to the anus. It is the rectum's job to tell the brain when stool or gas comes into the rectum. If the waste cannot be disposed, the rectum will accommodate so the sensation goes away.

#### Step 11: Anus

This is the final step in the digestive system. The upper anus is able to detect rectal content. The pelvic floor muscle makes sure that the stool won't come out when it's not supposed to.

### **3 Questions:**

1. **Q:** How long does it take the food to travel down the esophagus to the stomach?

**A:** It takes 2.5 seconds for the food to travel down the esophagus to the stomach.

2. **Q:** How much can an adult stomach hold?

**A:** The adult stomach can hold about 1.5 litres.

3. **Q:** How long is the small intestine?

**A:** The small intestine is 22 feet long.

Sight used:

<http://www.webmd.com/heartburn-gerd/your-digestive-system>